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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,175	01/26/2004	Tetsuro Nakasugi	3180.0283-01	6700
22852	7590	07/27/2004	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 1300 I STREET, NW WASHINGTON, DC 20005			SMITH, JOHNNIE L	
			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<p><b>Application No.</b></p> <p>10/763,175</p>	<p><b>Applicant(s)</b></p> <p>NAKASUGI, TETSURO</p>	
	<p><b>Examiner</b></p> <p>Johnnie L Smith II</p>	<p><b>Art Unit</b></p> <p>2881</p>	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-27 is/are pending in the application.
- 4a) Of the above claim(s) 14-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. <u>0725</u> .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>0126</u> .  | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C.

121:

- I. Claims 14-18, drawn to exposure data creation method, classified in class 430, subclass 30, 296.
- II. Claims 19-22, drawn to recording medium, classified in class 700, subclass 115, 116, 122.
- III. Claims 23-27, drawn to charge particle beam method, classified in class 250, subclass 492.2.

2. The inventions are distinct, each from the other because of the following reasons:

3. Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as it can be preformed without a charged particle beam sytem as required in invention III. See MPEP § 806.05(d).

4. Inventions I, II and III are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because inventions I and III are methods that can be preformed/ not preformed with the use of a charge particle beam as disused above; whereas, invention II the subcombination has separate utility of being a computer readable data system.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Richard Burgujian on 07/20/2004 a provisional election was made without traverse to prosecute the invention of III, claims 23-28. Affirmation of this election must be made by applicant in replying to this Office action. Claims 14-22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

*Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 5,371,373 (Shibata et al). Shibata teaches a charged beam exposure method having steps of dividing layout data of a semiconductor apparatus into sizes of basic figure apertures which take reduction in exposure into consideration, classifying the divided layouts according to the basic figure apertures; and emitting a beam onto a sample, the beam being shaped into a form of an overlapped portion of the divided layouts and the classified basic figure apertures (column 2 line 54-column 3 line 2).

9. In reference to claim 24, Shibata teaches a charged beam exposure method wherein said emitting onto the sample comprises obtaining the overlapped portion of the divided layouts and the classified basic figure apertures so as to create first data which shows existence/non-existence of deflection at aperture sections on a blanking aperture array (column 2 lines 22-46).

10. In reference to claim 25, Shibata teaches a charged beam exposure method wherein the said emitting onto the sample comprises creating second data which have positions of the divided layouts in the layout of the semiconductor apparatus, names of the classified basic figures, and in which the positions and the names and the addresses have correspondence to one another (column 5 lines 17-32).

11. In reference to claim 26, Shibata teaches a charged beam exposure method wherein the said emitting onto the sample comprises calling the position, calling the name and the address of the basic figures which have correspondence to the called position, and calling the first data from the address (column 6 line 53-column 7 line 19).

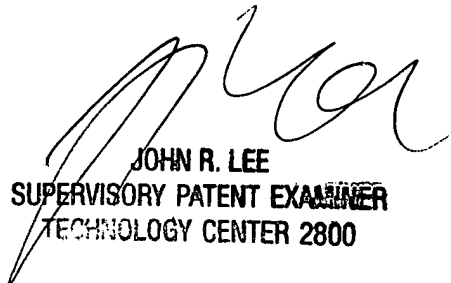
12. In reference to claim 27, Shibata teaches a charged beam exposure method wherein said emitting onto the sample comprises applying a voltage for deflection control to electrodes of blanking aperture array based on the first data; applying a control voltage to a deflector for basic figure selection based on the name of the basic figure; and applying a control voltage to a deflector for position specifying based on the position (column 4 line 16-66, figure 3).

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents; 5,849,436 (Yamada), 5,895,925 (Nakasuji), 6,093,932 (Nakajima), 6,433,347 (Suzuki), 6,630,681 (Kojima), 6,744,058 (Gau et al). All of the cited US patents contain art similar to that being claimed by applicant, more specifically, methods of charge particle beam apparatuses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L Smith II whose telephone number is 571-272-2481. The examiner can normally be reached on Monday-Thursday 7-4 P.M. and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

  
JOHN R. LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JLSII

Johnnie L Smith II  
Examiner  
Art Unit 2881